line 25, delete "contaminations" and substitute therefor -- contamination --;

line 26, delete "protein" and substitute therefor -- proteins --; and

line 35, delete "vector" and substitute therefor -- sequence --.

Page 35, line 20, delete "chain" and substitute therefor -- chains --; and

line 26, delete "polypeptides" and substitute therefor -- polypeptide --.

IN THE CLAIMS

Kindly amend the claims as follows:

16. (Twice amended) An HLA-DR typing process comprising the steps of restricting DNA isolated from an [the] individual to be typed with at least one restriction endonuclease; size fractionating the restricted DNA; hybridizing the size-fractionated DNA to a DNA sequence of any one of claims 23-24 and 34-39 and detecting [the areas of] hybridization between said DNA and said DNA sequence.

17. (Amended) The process of claim 16, wherein a ^{32}P-labelled DNA sequence is employed for hybridization and its radioactive label is used for detecting [the areas of] hybridization between said DNA and said DNA sequence.

23. (Amended) An isolated [A] DNA sequence encoding a portion of at least one β-chain antigen of the HLA-DR locus of the human lymphocyte antigen complex, said DNA sequence being selected from the group consisting of:

(a) the DNA sequences of [inserts] DR-β-A, DR-β-B and DR-β-C,

(b) the expressed portion of the DNA sequences of [inserts] DR-β-A, DR-β-B and DR-β-C,

(c) DNA sequences that hybridize under high criterium to any of the foregoing sequences,

(d) DNA sequences that, upon expression, code for a portion of a polypeptide encoded by any one of the foregoing DNA sequences [inserts], said portion comprising a region of mismatch between [the polypeptides coded for by] any two of the foregoing DNA sequences [inserts], and which hybridize under high criterium thereto, and

(e) DNA sequences which, as a result of the genetic code are degenerate to [coding on expression for the polypeptides coded for by the expression of] any of the foregoing DNA sequences [or DNA inserts].

24. (Amended) The DNA sequence of claim 23, wherein said DNA sequence (b) which hybridizes to said DNA sequence (a) is selected from the group consisting of:

(f) the DNA sequence [insert] of DR-β-D,

(g) DNA sequences which hybridize under high criterium to the DNA sequence [insert] of DR-β-D,

(h) DNA sequences that, upon expression, code for a portion of a polypeptide encoded by the DNA sequence of [insert] DR-β-D, said portion comprising a region of mismatch between [the polypeptides coded for by] said DNA sequence [insert] and any one of the DNA sequences of [inserts] DR-β-A, DR-β-B and DR-β-C, and

(i) DNA sequences which, as a result of the genetic code are degenerate to [coding on expression for the polypeptides coded for by the expression of] any of the foregoing DNA sequences [or inserts].

30. (Amended) The HLA-DR typing process of claim 16 further comprising the step of hybridizing the size-fractionated DNA to a hybridization control, [wherein the] said hybridization control being [is] a 19-mer of the formula GCTTCGACAGCGACGTGGG.

31. (Amended) An isolated [A] DNA sequence [specific] which specifically hybridizes to an HLA DR-β-chain locus, said DNA sequence being [specific] capable of specifically hybridizing to a polymorphic region of said locus to allow determination of one or more HLA alleles for use in HLA DR-β typing, said polymorphic region being

encoded by DNA selected from the group consisting of:

(a) DNA sequences encoding amino acids 8-14 of said locus;

(b) DNA sequences encoding amino acids 26-32 of said locus;

(c) DNA sequences encoding amino acids 72-78 of said locus;

(d) portions of any one of the foregoing DNA sequences which are [specific] capable of specifically hybridizing to said polymorphic region;

(e) DNA sequences which are fully complementary to any of the foregoing DNA sequences; and

(f) DNA sequences which, as a result of the genetic code, are degenerate to any of the foregoing DNA sequences.

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32. (Amended) An isolated [A] DNA sequence [specific] which specifically hybridizes to an HLA Class II β-chain locus, said DNA sequence being [specific] capable of specifically hybridizing to a polymorphic region of said locus to allow determination of one or more HLA alleles for use in HLA β typing, said polymorphic region being encoded by DNA selected from the group consisting of:

(a) DNA sequences encoding amino acids 8-14 of said locus;

(b) DNA sequences encoding amino acids 26-32 of said locus;

(c) DNA sequences encoding amino acids 72-78 of said locus;

(d) portions of any one of the foregoing DNA sequences which are [specific] capable of specifically hybridizing to said polymorphic region;

(e) DNA sequences which are fully complementary to any of the foregoing DNA sequences; and

(f) DNA sequences which, as a result of the genetic code, are degenerate to any of the foregoing DNA sequences.

33. (Amended) A DNA sequence [specific] which specifically hybridizes to an HLA DR-β-chain locus, said DNA sequence being [specific] capable of specifically hybridizing to a conserved region of said locus to allow determination of one or more HLA alleles for use in HLA typing, said conserved region comprising a DNA sequence selected from the group consisting of:

(a) DNA sequences encoding amino acids 39-45 of said locus;

(b) portions of the foregoing DNA sequences which are [specific] capable of specifically hybridizing to said conserved region;

(c) DNA sequences which are fully complementary to any of the foregoing DNA sequences; and

(d) DNA sequences which, as a result of the genetic code, are degenerate to any of the foregoing DNA sequences.

38. (Amended) The isolated [A] DNA sequence [having the formula]:

GGGGACACCCGACCACGTTTCTTGGAGCTGCTTAAGTCTGAGTGTCATTTCT
TCAATGGGACGGAGCGGGTGCGGTTCCTGGAGAGACACTTCCATAACCAGGA
GGAGTACGCGCGCTTCGACAGCGACGTGGGGGAGTACCGGGCGGTGAGGGAG
CTGGGGCGGCCTGATGCCGAGTACTGGAACAGCCAGAAGGACCTCCTGGAGC
AGAAGCGGGGCCAGGTGGACAATTACTGCAGACACAACTACGGGGTTGTGGA
GAGCTTCACAGTGCAGCGGCGAGTCCATCCTCAGGTGACTGTGTATCCTGCA
AAGACCCAGCCCCTGCAGCACCACAACCTCCTGGTCTGCTCTGTGAGTGGTT
TCTATCCAGGCAGCATTGAAGTCAGGTGGTTCCGGAACGGCCAGGAAGAGAA
GGCTGGGGTGGTGTCCACGGGCCTGATCCAGAATGGAGACTGGACCTTCCAG
ACCCTGGTGATGCTAGAAACATTTCCTCGGAGTGGAGAGGTTTACACCTGCC
AAGTGGAGCACCCAAGCGTAACGAGCCCTCTCACAGTGGAATGGAGTGCACG
GTCTGAATCTGCACAGAGCAAGATGCTGAGTGGAGTCGGGGGCTTTGTGCTG
GGCCTGCTCTTCCTTGGGGCCGGGCTGTTCATCTACTTCAGGAATCAGAAAG
GACACTCTGGACTTCAGCCAACAGGATTCCTGAGC.

39. (Amended) The isolated [A] DNA sequence [having the formula]:

GGGGACACCCGACCACGTTTCTTGGAGCAGGTTAAACATGAGTGTCATTTCT

TCAACGGGACGGAGCGGGTGCGGTTCCTGGACAGATACTTCTATCACCAAGA

GGAGTACGTGCGCTTCGACAGCGACGTGGGGGAGTACCGGGCCGTGACGGAG

CTGGGGCGGCCTGATGCCGAGTACTGGAACAGCCAGAAGGACCTCCTGGAGC

AGAAGCGGGCCGCGGTGGACACCTACTGCAGACACAACTACGGGGTTGGTGA

GAGCTTCACAGTGCAGCGGCGAGTCTATCCTGAGGTGACTGTGTATCCTGCA

AAGACCCAGCCCCTGCAGCACCACAACCTCCTGGTCTGCTCTGTGAATGGTT

TCTATCCAGGCAGCATTGAAGTCAGGTGGTTCCGGAACGGCCAGGAAGAGAA

GACTGGGGTGGTGTCCACAGGCCTGATCCAGAATGGAGACTGGACCTTCCAG

ACCCTGGTGATGCTGGAAACAGTTCCTCGGAGTGGAGAGGTTTACACCTCCC

AAGTGGAGCACCCAAGCCTGACGAGCCCTCTCACAGTGGAATGGAGAGCACG

GTCTGAATCTGCACAGAGCAAGATGCTGAGTGGAGTCGGGGGCTTCGTGCTG

GGCCTGCTCTTCCTTGGGGCCGGGCTGTTCATCTACTTCAGGAATCAGAAAG

GACACTCTGGACTTCAGCCAACAGGATTCCTGAGC.

42. (Amended) An HLA-DR typing process comprising the steps of hybridizing DNA in a sample to be tested to a DNA sequence according to any one of claims 31-33 and detecting [the] hybridization between said DNA and said DNA sequence.

44. (Amended) An HLA-DR typing process comprising the steps of hybridizing DNA in a sample to be tested to a DNA sequence according to any one of claims 23-24 and 34-39 and detecting [the] hybridization between said DNA and said DNA sequence.